

ABSTRACT

A black coating composition which gives a highly adhesive resin black matrix that exhibits a high OD value which was able to be attained only by metal thin film black matrices is disclosed. The black coating composition comprises as
 5 indispensable components a titanium nitride oxide and a resin. The X-ray intensity ratios R_1 and R_2 of the titanium nitride oxide represented by the Equations (1) and (2) below, respectively, satisfy the relationships represented by Formulae (3) and (4) below:

$$R_1 = I_3 / \{I_3 + 1.8(I_1 + 1.8I_2)\} \quad (1)$$

$$10 \quad R_2 = I_2 / I_1 \quad (2)$$

$$R_1 > 0.70 \quad (3)$$

$$0.85 < R_2 < 1.80 \quad (4)$$

wherein I_1 represents the maximum diffraction intensity of the titanium nitride oxide when the angle of diffraction 2θ , determined by using $\text{CuK}\alpha$ line as the X-ray source,
 15 is 25° to 26° , I_2 represents the maximum diffraction intensity of the titanium nitride oxide when the angle of diffraction 2θ is 27° to 28° , and I_3 represents the maximum diffraction intensity of the titanium nitride oxide when the angle of diffraction 2θ is 36° to 38° .